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AUTHOR Gross, Fred
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ABSTRACT

This article discusses the issue of defining and facing equity elementary mathematics classrooms. It is argued that teachers have difficulty facing the fact of inequity in classrooms and that a deep conversation about equity is often avoided because many people are uncomfortable with disagreement. Two strategies for promoting in-depth dialogue about equity are presented. It is concluded that educators must confront their personal beliefs and examine how they are affecting students' lives and student performance. (MM)

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Weaving Gender Equity into Math Reform

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Facing Equity: Facing Ourselves

by Fred Gross

Why are female and minority students not taking courses in mathematics and science? Lucretia Crocker, an educational reformer and former member of the Boston (Massachusetts) school committee asked this question nearly 100 years ago. Her question persists.

Given the current cries for accountability in education, it would seem reasonable to question why certain groups of students are not performing well in math and science. States and districts are investing heavily in standardized testing to measure student achievement and to determine how well schools are educating students. Despite this effort, are we really examining whether we are accountable to all students? When we look at performance data do we ask, are all students making improvements? Schools typically report their aggregate data which do not tell the whole story. When we begin to disaggregate the data, we may find that while the average scores have gone up, there are groups of students whose scores are declining.

What are we doing to cause inequitable outcomes? Are we creating policies and programs based solely on assumptions about certain groups of students and their potential to learn? One way to uncover underlying assumptions and beliefs is to engage school faculty in a dialogue about equity.

This is no easy task. In workshops I facilitate, I ask educators to define equity. Often after what appears to be a quick start, educators have difficulty agreeing on a definition. Initial responses include thinking about all students, equal opportunities for all students, and equal access to course work for all students. Probing further, I ask what *all students* and the term *equal* means. The discussion usually becomes more entangled as participants debate whether there is a difference between equal and equitable. For some, equitable means the same practices, while for others the emphasis is that the practices are fair for each student.

Do we believe our own definitions?

Although workshop participants cannot agree on a definition of equity, they usually agree that their behaviors and actions are equitable. When asked to affirm or deny the statements, "I treat everyone the same" and "I don't see color in my classroom," most participants nod in agreement.

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Current research reveals the very different ways educators treat groups of students. For example: "Teachers initiated significantly more mathematics interactions with males than females" (Fennema & Peterson as cited in Grayson & Martin, 1997, p. 24), "When they gave correct answers, males were praised more frequently than females" (Good & Brophy as cited in Grayson & Martin, 1997, p. 25).

When I present these and other research findings, educators are often surprised, question their accuracy, and assume that the research is not relevant to what is happening at their school.



Workshop participants may say that they treat every student the same, but further questioning typically reveals that they mean they treat students fairly. For example, one participant commented that a system of grouping or tracking students is necessary because the potential MIT student and the potential bagger at a local grocery store cannot be taught in the same class. The justification for tracking reveals how core beliefs result in schoolwide policies and procedures.

At first educators may not see the potential conflicts in their stated beliefs. In the previous example, the educator views the practice of tracking as fair and believes it supports the goal of meeting each student's educational needs. As the dialogue continues and the group begins discussing the ways they identify those students who may or may not be college bound, participants may begin to see how their beliefs and actions conflict with their well-meaning definitions of equity. When examining equity issues in schools, it is important to ask whether we really believe our definitions of equity. And if so, why do inequitable situations - policies, practices, and procedures - still occur in our schools? The search for answers takes a willingness to look deeply at our personal beliefs.

Facing what we really believe

The deeper conversation about equity is often avoided because many people are uncomfortable with disagreement, especially if it is loud and passionate. When I ask participants to describe their initial group interactions when trying to define equity, they respond with words such as cerebral, polite, difficult, pleasant, and thought provoking. However, they acknowledge that exchanges become more intense as people express and defend their views. Participants voice their discomfort with the more passionate tone of the discussion, and some withdraw from the conversation.

Many people feel that emotions interfere with the sharing of ideas and therefore attempt to keep them out of the conversation. They rely on more intellectual and less emotional approaches to the dialogue. This is not always the best course of action.

New research and insights on the role of emotions are destroying popular assumptions that emotions cloud logic. Damasio (1994) observes that 'an important [and erroneous] aspect of the rationalist conception is that to obtain the best results, emotions must be kept out. Rational processing must be unencumbered by passion.' Emotions, says Damasio, are actually indispensable to rational decision-making. (Hargreaves & Fullan, 1998, p. 52)

When conversations occur in which an individual or a group of people is either purposefully or accidentally left out, emotions will surface. Talking about equity is an emotional

experience. A friend and former colleague, Manuel J. Fernandez, offers this caution, "Don't confuse passion for anger."

There is a price to pay when we choose to gloss over or avoid uncomfortable or revealing conversations. The high price can be found in school communities where stereotypes with negative implications are unjustly placed upon students and certain voices are not heard.

In her work with college-age students, Dr. Jean Wu has documented how certain groups of students describe the way their racial identity shapes their school experiences. She identifies themes that come from students' reflections on their middle and high school years. White European American students commented that there was an absence of race in their lives. Black/African American students remarked that they were always seen as inferior and not welcomed. Latino/a students felt "alien" and lost between black and white. Asian students remarked that they were viewed as the enemy and confused with Asians overseas. Native American students felt absent altogether. Many students felt they were not represented in the curriculum.

The consequence for not beginning the dialogue is identified further by Dr. Beverly Daniel-Tatum in her work on anti-racism. "As a society, we pay a price for our silence. Unchallenged personal, cultural, and institutional racism results in the loss of human potential, lowered productivity, and a rising tide of fear and violence in our society" (1997, p. 200). Passion and emotion are the vehicles that help individuals identify their beliefs and prejudices. In turn, *feeling* the beliefs is a doorway towards greater self-examination and change in thinking and practice.



Starting the dialogue

The best way to deal with what's out there is to move toward the danger. (Hargreaves & Fullan, 1998, p. 67)

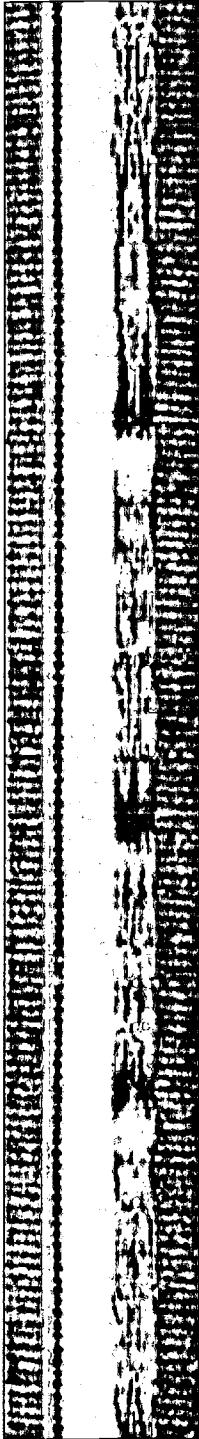
What then are some methods for promoting an in-depth dialogue about equity? Here are two strategies that illustrate ways to create a more meaningful exchange.

One activity focuses on stereotypes wittingly and unwittingly promulgated in the classroom. Around the room, a facilitator hangs labels for a type of student - Hispanic female, special education, active male, overweight - and asks participants to write their reactions on stickie notes and place them around the labels. The whole group reviews the collection of comments:

The reactions from a session with nearly 200 educators revealed many assumptions and beliefs that affect how students are treated.

- Hispanic females were often viewed for their physical features and social life rather than for their intelligence.
- Asian students were all seen as smart and grouped together. There was little understanding of the difference between Asian-American students and students from Asia.
- Black males were noticed for their brawn and not their brains.
- Active boys were identified as having an attention deficit disorder, yet, when questioned, not a single participant said they had the training to make such a diagnosis.
- Doctors' daughters were stereotyped as spoiled, rich, academically driven and entitled.
- Overweight students were viewed as lazy and full of excuses.

In this activity, it is important to allow the emotion or passion to flow out and to acknowledge and not invalidate the feelings of each individual. In one instance, a woman was describing her perspective about girls' experiences in school and what those experiences meant to her. A male participant jumped on the description, stating that it was "wrong!" As the facilitator, I asked him how he knew that he was right and, more importantly, what were the consequences of his invalidating the experiences of another person. This raised the level of anxiety and emotion and was a chance to demonstrate to the group the importance of working through issues rather than avoiding them.



The opportunity to discuss their beliefs was cathartic. Although many participants may not have been proud of their comments, it took courage for them to acknowledge their real feelings associated with stereotypes. The process helped participants acknowledge the feelings of their colleagues who deal with labels and negative stereotypes every day.

A second activity clarifies opinions or positions. I push participants not to settle for their initial responses but to question and examine their thoughts and beliefs. I pose the following statement to the group and ask for their reactions: Teachers have white, middle class behaviors and goals in mind when they think of their ideal student. In one session, the group had the following responses:

While you wouldn't want to, you buy in.

The middle class is the middle class. Why are we using "white?"

Teachers have skills that they want to impose on others. We don't have teachers who can't do these things well - reading, literacy - so they don't know what to do with those who don't do these things well.

They are such narrow skills that we value - they lack diversity. Sometimes even as a woman - a white middle class person, but a woman - I can't succeed in the skills.

I wanted to see if all voices were heard and had the same view, so I asked the people of color in the group to give their reactions to the statement. This is what they revealed to the entire group:

They (teachers) need to be educated - walk the talk, seeing is believing.

I wholeheartedly agree that there is an ideal student and rarely is that student the person that's sitting in certain classes. ... And when it is it's because that person has absorbed all the white, middle class values. Or can display them in that setting.

I come back to diversity, being able to understand the need for all children to be different and not mirror one standard. A person, even though different, can aspire to very high goals and expectations.

I think it's also validating what children and faculty of color have to say and not making the white view the only one with value.

The responses showed a different experience. By not asking all participants or constituents for their reactions, we limit our understanding of the underlying complexities of equity. When you ask a constituency for their views, the group as a whole is forced to listen and acknowledge different perspectives.

Once these beliefs or impressions become public, the important work is to identify where they come from and how they are affecting student achievement. The work is not risk free! Examining deeply held personal beliefs and acknowledging them is where we face equity. As one recent workshop participant acknowledged, "This equity work, it is about our personal beliefs!"



Proceed with care

Facilitating an emotional dialogue is complex and difficult. It requires patience, perseverance, and excellent communication skills in order to ensure that everyone is heard and that the group adheres to agreed upon goals.

When the group dynamic intensifies, ask the participants to clarify their statements and reflect on how a particular idea, thought, or belief affects them. The following questions can help keep the group focused.

- What would that point be like for other members of the group?
- How many of you agree or disagree with that statement? Why?
- What do you think that point would be like for your students?
- What does that mean to you?
- How does that feel to you?
- Do others in the group feel the same way?

Group rules create a safer environment for examining feelings and beliefs. Participants must own their behaviors and opinions. Therefore, when stating beliefs or offering opinions, each member should use an "I" statement, for example, "I feel this way, because..." or "I disagree because...." These statements show ownership and respect for others in a group. Participants should also use their own personal stories and not the stories of other people. In this way, they are involved in the conversation on a more personal level. To encourage full participation, people should sit in a circle, so that they can see each other clearly. Don't let anyone sit behind another person.

"Equity is about making the invisible, visible." - Mj Terry, a math and equity specialist

Engaging school faculty in a dialogue about equity is difficult, but necessary if we are to identify the beliefs that are shaping many school policies and practices. Policies cannot be based on false assumptions. Educators must confront their personal beliefs and examine how they are affecting students' lives and student performance. As James Baldwin wrote so succinctly, "Not everything that is faced can be changed. But nothing can be changed until it is faced."

References

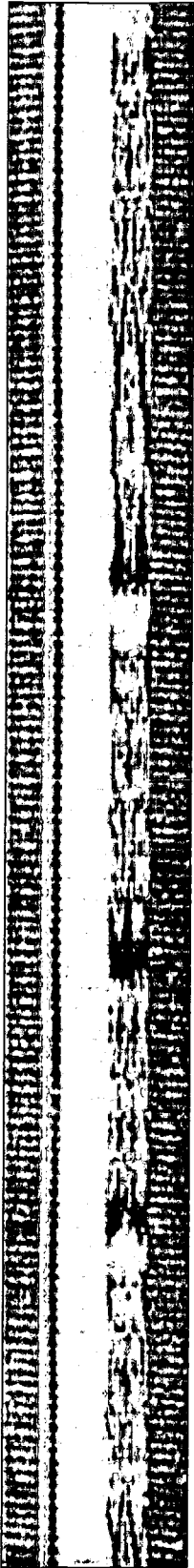
- Daniel-Tatum, B. (1997). *"Why Are All the Black Kids Sitting Together in the Cafeteria?" and Other Conversations About Race*. New York: Basic Books.
- Grayson, D.A. & Martin, M.D. (1997). *Generating expectations for student achievement: An equitable approach to educational excellence*, teacher handbook (3rd ed.). Canyon Lake, CA: GrayMill.
- Hargreaves, A. & Fullan, M. (1998). *What's worth fighting for out there*. New York, NY: Teachers College Press.
- Wu, J. (1997) Themes in understanding how our students live race. Empowering Multicultural Initiatives Graduate Institute. Wayland, Massachusetts: EMI.



Fred Gross is a math and science curriculum development specialist and staff developer for the Sudbury, Massachusetts, Public Schools. He is currently on sabbatical working as a math and equity specialist for the Regional Alliance at TERC.

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